
Woods Hole Oceanographic Institution
Biology Department Seminar
Co-sponsored with Marine Mammal Center
Thursday, September 27, 2012
Redfield Auditorium - 12:00 Noon

Life in the abyss – Social dynamics of deep-diving pilot whales

Dr. Frants Jensen

Danish Council for Independent Research
Natural Sciences Postdoctoral Fellow, Woods Hole Oceanographic Institution

Toothed whales display a large variation in social structure such as the frequently changing groups characterizing bottlenose dolphins, or the highly stable, matrilineal groups characteristic of sperm whales and killer whales. I use pilot whales as a model organism to develop methods for studying acoustic interactions and information flow within cohesive groups of animals to understand the social dynamics of toothed whale societies. Recent investigations using WHOI DTAGs suggest that acoustic signals are important for maintaining or re-establishing contact with group members following periods of separation during foraging at more than 800m, where pneumatic call production can be severely hindered by the high ambient pressure. Simultaneous tags on multiple group members now reveal how some closely associated individuals synchronize their foraging dives in time, yet limit intragroup competition for resources by spreading out spatially during foraging, and how multiple types of acoustic signalling mechanisms mediate cohesion across varying spatial scales.